REMARKS

Applicants would like to express appreciation to the Examiner for the detailed Official Action provided. By the present Amendment, Figs. 5 & 6 will have been replaced, claims 1 and 29 will have been amended and claim 2 will have been canceled. Applicants note that claim 1 has been amended to substantially incorporate the limitations of claim 2. Claims 1, 3-5 and 29 remain pending in the application for consideration by the Examiner.

Claim Objections

The Examiner has objected to claims 1-5 and 29, requiring the correction of several clerical errors. By the present Amendment, Applicants have amended claim 1 in accordance with the Examiner's request, and thus respectfully requests that the Examiner withdraw the objection to the specification.

Rejection Under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claim 29 under 35 U.S.C. § 112, second paragraph, as being indefinite. Without agreeing to the propriety of the Examiner's rejection, Applicants have amended claim 29 to recite ---supplying--- rather than "supply", thereby obviating the Examiner's rejection. Further, although Applicants respectfully disagree with the Examiner's rejection under 35 U.S.C. § 112, second paragraph, in that one skilled in the art would readily understand the meaning of the term at issue, Applicants have amended this claim solely to expedite the patent application process in a manner consistent with the PTO's patent business goals, 65 Fed. Reg. 54603 (September 8, 2000). It is thus respectfully requested that the Examiner withdraw the rejection of claim 29 under 35 U.S.C. § 112, second paragraph.

Double-Patenting Rejection

The Examiner has rejected claims 1-5 and 29, as being unpatentable over claim 1 of commonly-assigned U.S. Patent No. 6,354,519, under the judicially-created doctrine of obviousness-type double patenting. Together with the present response, Applicants have submitted a duly executed Terminal Disclaimer, which overcomes the obviousness-type double patenting rejections.

Applicants are filing the enclosed terminal disclaimer merely to remove any issue as to whether the claims of the above-identified application and those of U.S. Patent No. 6,354,519 any way conflict. However, neither Applicants nor the Assignee intend to make any representation as to whether the invention defined by any of the claims of either the present application or U.S. Patent No.6,354,519 would have been obvious in view of the other or whether or not any obviousness type double patenting rejection would be appropriate if the enclosed Terminal Disclaimer were not filed. Nor do Applicants acquiesce in the propriety of the Examiner's rejection. The terminal disclaimer is being filed only to expedite the allowance of the pending claims.

Rejections under 35 U.S.C. § 102

A) The Examiner has rejected claims 1-5 and 29 under 35 U.S.C. § 102(b) as being anticipated by JPU 7-51066 to SHIMIZU and also as being anticipated by JP 6-70986 to KOBAYASHI, finding that these references each teach all limitations of these claims. Applicants respectfully traverse the Examiner's rejections. For example, with respect to claim 1, Applicants submit that these references fail, alone or in any proper combination, to teach or suggest at least the claimed annular, protruded wall spaced outwardly from an outer periphery of the spray nozzle, the wall protruded forwardly

from and surrounding an exit of the spray nozzle. To the contrary, SHIMIZU and KOBAYASHI more closely correspond to the prior art as discussed by Applicants and as shown in Figs. 5-6 of the present application. Specifically, the "annular protruded wall" (5a of SHIMIZU and the wall near opening 6 of KOBAYASHI) identified by the Examiner do not protrude forwardly from and surround an exit of the spray nozzle as claimed, but are walls in direct communication with a liquid rotating chamber 10, and thus protrude forwardly from the liquid rotating chamber and not from the exit of a spray nozzle. If anything, these "walls" protrude rearwardly from an exit of a spray nozzle and therefore do not surround an exit of a spray nozzle.

With respect to claim 2 (the limitations of which, as described *supra*, has been incorporated into independent claim 1), the "tapered portion" is not that of a wall protruded forwardly from and surrounding an exit of the spray nozzle. Specifically, "tapered surface or a curved, concave surface" does not extend between the outer periphery of the spray nozzle and the annular, protruded wall as claimed (emphasis added), since the tapered portion (5b of SHIMIZU and wall near opening 6 of KOBAYASHI) is at the most distal end of the spray nozzle in each reference.

B) The Examiner has rejected claims 1-5 and 29 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,016,800 to CENTURY. Applicants respectfully traverse the Examiner's rejection. For example, with respect to claim 1, Applicants submit that CENTURY fails to teach or disclose at least the claimed feature that the wall surface extending between the outer periphery of the spray nozzle and the annular, protruded wall is defined by one of a tapered surface and a curved,

¹ By the present amendment, Applicants have provided new replacement drawings for Figs. 5 and 6 which include a "PRIOR ART" legend.

concave surface. To the contrary, the "tapered surface" identified by the Examiner in CENTURY is not that of a wall protruded forwardly from and surrounding an exit of the spray nozzle. Specifically, in CENTURY, the "tapered surface or a curved, concave surface" does not extend between the outer periphery of the spray nozzle and the annular, protruded wall as claimed (emphasis added), but rather is internal to the sleeve member, since the Examiner identified the annular, protruded wall as being near 23 in Fig. 2a. Thus, this tapered surface cannot be between the outer periphery of the spray nozzle and the annular, protruded wall as claimed.

It is therefore respectfully submitted that the applied references fail to teach or suggest the invention of independent claim 1, as well as the claims dependent therefrom.

With respect to the Examiner's rejection of dependent claims 3-5 and 29, since these claims are dependent from allowable independent claim 1, which is allowable for at least the reasons discussed *supra*, these dependent claims are also allowable for at least these reasons. Further, all dependent claims recite additional features which further define the present invention over the references of record. It is thus respectfully submitted that all rejected claims are patentably distinct from the references of record.

Absent a disclosure in a single reference of each and every element recited in a claim, a *prima* facie case of anticipation cannot be made under 35 U.S.C. § 102. Since the applied reference fails to disclose each and every element recited in independent claim 1, and the claims dependent therefrom, these claims are not anticipated thereby. Accordingly, the Examiner is respectfully requested to withdraw the rejection under 35 U.S.C. § 102.

Thus, Applicants respectfully submit that each and every pending claim of the present

application meets the requirements for patentability under 35 U.S.C. §§ 102 and 112, and respectfully request the Examiner to indicate the allowance of each and every pending claim in the present application.

SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that the present amendment is in proper form and

that none of the references either taken together or taken alone in any proper combination thereof,

anticipate or render obvious Applicants' invention. Accordingly, consideration of the present

amendment, reconsideration of the outstanding Official Action and allowance of the present

application and all of the claims therein are respectfully requested and are now believed to be

appropriate.

Applicants note that this Amendment is being made to advance prosecution of the application

to allowance, and should not be considered as surrendering equivalents of the territory between the

claims prior to the present amendment and the amended claims.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned

at the telephone number listed below.

Respectfully submitted,

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November 15, 2004

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IN THE DRAWINGS

Please replace Figs. 5 and 6 with the replacement pages including a "PRIOR ART" legend.